SEQUENCE LISTING

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<120> PROTEIN ISOLATION AND ANALYSIS

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<150> PCT/GB00/01015
<151> 2000-03-17

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<151> 1999-03-23

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<223> n=a,g,t,c

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<223> v=a,g,c

<220>
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<223> n=a,t,g,c

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nac ncc ngg ntg tkc vag gnv cnt 24
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5

<210> 2
<211> 8

<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic
barcode peptide

<220>
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<222> (1)..(1)
<223> The 'Xaa' at location 1 stands for Asn, Asp, His, or Tyr.

<220>
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<222> (2)..(2)
<223> The 'Xaa' at location 2 stands for Thr, Ala, Pro, or Ser.

<220>
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<222> (3)..(3)
<223> The 'Xaa' at location 3 stands for Arg, Gly, or Trp.

<220>
<221> misc_feature
<222> (4)..(4)
<223> The 'Xaa' at location 4 stands for Met, Val, or Leu.

<220>
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<222> (5)..(5)
<223> The 'Xaa' at location 5 stands for Cys, or Phe.

<220>
<221> misc_feature
<222> (6)..(6)
<223> The 'Xaa' at location 6 stands for Lys, Glu, or Gln.

<220>
<221> misc_feature
<222> (7)..(7)
<223> The 'Xaa' at location 7 stands for Glu, Asp, Gly, Ala, or Val.

<220>
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<222> (8)..(8)
<223> The 'Xaa' at location 8 stands for His, Arg, Pro, or Leu.

<400> 2
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5

<210> 3
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Linker peptide

<400> 3
Glu Gly Lys Ser Ser Gly Ser Gly Ser Glu Ser Lys Val Asp
1 5 10

<210> 4
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Flag epitope peptide

<400> 4
Met Asp Tyr Lys Asp Asp Asp Lys
1 5

<210> 5
<211> 53
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer RD5' Flag

<400> 5
gcggatccca tatggactac aaagacgatg acgacaaaca ggtgcagctg cag 53

<210> 6
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer RD3'

<400> 6
gcgaattcgt ggtggtggtg gtggtgtgac tctcc 35

<210> 7
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer Fos1for

<400> 7
atggaattcc tcgagaccga caccctacag gcggaaaccg accagctgga 50

<210> 8
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer
Fos80rev

<400> 8
tcgcgatttc ggtttgcagc gcggattttt cgtcttccag ctggtcggtt 50

<210> 9
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer
Fos71for

<400> 9
aaaccgaaat cgcgaacctg ctgaaagaaa aagaaaagct ggagttcatc 50

<210> 10
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer
Fos155rev

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ggaagcttga attccgccgg acggtgtgcc gccaggatga actccagctt 50

<210> 11
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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Fos1 fS

<400> 11
atggaattcc tcgagacc 18

<210> 12
<211> 18

<212> DNA
<213> Artificial Sequence

<220>
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Fos155 rS

<400> 12
ggaagcttga attccgcc 18

<210> 13
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer I
for 340 VH amplification

<400> 13
cagctgcagg agtctggggg aggcttag 28

<210> 14
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer II
for 340 VH amplification

<400> 14
tcagtagacg gtgaccgagg ttccttgacc ccagta 36

<210> 15
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer I
for 340 VK amplification

<400> 15
gtgacattga gctcacacag tctcct 26

<210> 16
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer II
for 340 VK amplification

<400> 16
cagcccgttt tatctcgagc ttggtccg 28

<210> 17
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer
RD5' His

<400> 17
gcggatccca tatgcaccat catcaccatc accaggtgca gctgcag 47

<210> 18
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer
Jun1for

<400> 18
atgagaattc tcgagcgtat cgctcgtctg gaagaaaaag ttaaaaccct 50

<210> 19
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<212> DNA
<213> Artificial Sequence

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Jun85rev

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tagcggtgga agccagttcg gagttctgag ctttcagggt tttaactttt 50

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<211> 50
<212> DNA
<213> Artificial Sequence

<220>
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Jun71for

<400> 20
tggcttccac cgctaacatg ctgcgtgaac aggttgctca gctgaaacag 50

<210> 21
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer
Jun146rev

<400> 21
catgcgaatt cgtggttcat aactttctgt ttcagctgag caacc 45

<210> 22
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer
Jun1for-S

<400> 22
atgagaattc tcgagcg 17

<210> 23
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer
Jun146rev-S

<400> 23
catgcgaatt cgtggttc 18

<210> 24
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer
Bio T7

<400> 24
agatctcgat cccgcaaatt a 21

<210> 25
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer
petrev

<400> 25
aaataggcgt atcacgaggc c 21

<210> 26
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Linker I
of oligonucleotide pool

<400> 26
ggccgcgagg aagaggaaat gatggc 26

<210> 27
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<213> Artificial Sequence

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of oligonucleotide pool

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<222> (21)..(21)
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<221> misc_feature
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<223> n=a,t,g,c

<400> 27
ggccgcgagg aagaggaaca ncangc 26

<210> 28
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Linker III
of oligonucleotide pool

<220>
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<222> (21)..(21)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (24)..(24)
<223> n=a,t,g,c

<400> 28
ggccgcgagg aagaggaaag nagngc 26

<210> 29
<211> 26
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Linker IV
of oligonucleotide pool

<220>
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<222> (21)..(21)
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<222> (24)..(24)
<223> n=a,t,g,c

<400> 29
ggccgcgagg aagaggaaaa naangc 26

<210> 30
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Linker V
of oligonucleotide pool

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<400> 30
ggccgcgagg aagaggaaga ngangc 26

<210> 31
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<223> Description of Artificial Sequence: Linker VI
of oligonucleotide pool

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<222> (21)..(21)
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<223> n=a,t,g,c

<400> 31
ggccgcgagg aagaggaatt nttngc 26

<210> 32
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Linker VII
of oligonucleotide pool

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<222> (7)..(7)
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<220>
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<223> n=a,t,g,c

<400> 32
ggccgcnaan aactccttct cctcgc 26

<210> 33
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
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of oligonucleotide pool

<220>
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<222> (7)..(7)
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<223> n=a,t,g,c

<400> 33
ggccgcntcn tcctccttct cctcgc 26

<210> 34
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<220>
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of oligonucleotide pool

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<223> n=a,t,g,c

<400> 34
ggccgcngtn gtctccttct cctcgc 26

<210> 35
<211> 26
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of oligonucleotide pool

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<220>
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<223> n=a,t,g,c

<400> 35
ggccgcnctn ctctccttct cctcgc 26

<210> 36
<211> 26

<212> DNA
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<220>
<223> Description of Artificial Sequence: Linker XI
of oligonucleotide pool

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<223> n=a,t,g,c

<400> 36
ggccgcnagn agctccttct cctcgc 26

<210> 37
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Linker XII
of oligonucleotide pool

<400> 37
ggccgccatc atctccttct cctcgc 26

<210> 38
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T7 promoter sequence

<400> 38
ttaatacgac tcactata 18

<210> 39
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
DNA linker

<400> 39
agctaatacg actcactata 20

<210> 40
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<212> PRT
<213> Artificial Sequence

<220>
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FLAG tag sequence

<400> 40
Asp Tyr Lys Asp Asp Asp Asp Lys
1 5

<210> 41
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
OL 001 sequence

<220>
<221> CDS
<222> (36)..(56)
<223> pelB leader sequence

<400> 41
gggcagatct ttaactttaa gaaggagata tacat atg aaa tac cta ttg cct 53
Met Lys Tyr Leu Leu Pro
1 5

acg g 57
Thr

<210> 42
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
OL 001 peptide sequence

<400> 42
Met Lys Tyr Leu Leu Pro Thr
1 5

<210> 43
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
OL 002 sequence

<400> 43
gggtctgggt cataacgata tcggccatcg ctggttgggc agc 43

<210> 44
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
OL 003 sequence

<400> 44
ggtaccaaac tggagatcaa acggactgtg gctgcaccat ct 42

<210> 45
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
OL 004 sequence

<400> 45
agatggtgca gccacagtcc gtttgatctc cagtttggta cc 42

<210> 46
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
OL 005 sequence

<400> 46
gatcgaattc ctaacactct ccgcggttga agctctttg 39

<210> 47
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
OL 006 sequence

<400> 47
gatcgaattc taactttaag aaggagatat acatatg 37

<210> 48
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
OL 007 sequence

<400> 48
ggactgaacc agttggactt cggccatcgc tggttgggca gc 42

<210> 49
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
OL 008 sequence

<400> 49
accctggtta ccgtctcctc agcctccacc aagggcccat c 41

<210> 50
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
OL 009 sequence

<400> 50
gatgggccct tggtggaggc tgaggagacg gtaaccaggg tac 43

<210> 51
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
OL 010 sequence

<400> 51
gatcgagctc tgctttcttg tccaccttgg tgttgc 36

<210> 52
<211> 52
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
OL 011 sequence

<400> 52
cccaaatctt gcgctgcaga ctacaaagac gacgacgaca aatagctcga gc 52

<210> 53
<211> 56
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
OL 012 sequence

<400> 53
ttaagctcga gctatttgtc gtcgtcgtct ttgtagtctg cagcgcaaga tttggg 56

<210> 54
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
OL 013 sequence

<400> 54
gaagacgtcg ctgtttac 18

<210> 55
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
OL 014 sequence

<400> 55
ggtaccaagc ttgagatc 18

<210> 56
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
OL 015 sequence

<400> 56
ctactgcgcg cgtgaaaaag 20

<210> 57
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic OL 016 sequence

<400> 57
gggtcagggg accctgg 17

<210> 58
<211> 77
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide for CDR3 light chain; positive strand

<220>
<221> CDS
<222> (1)..(75)
<223>

<220>
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<222> (31)..(32)
<223> n=a,t,g,c

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<221> misc_feature
<222> (33)..(33)
<223> s=g,c

<220>
<221> misc_feature
<222> (34)..(35)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (36)..(36)
<223> s=g,c

<220>
<221> misc_feature
<222> (37)..(38)
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<220>
<221> misc_feature
<222> (39)..(39)
<223> s=g,c

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<221> misc_feature
<222> (40)..(41)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (42)..(42)
<223> s=g,c

<220>
<221> misc_feature
<222> (43)..(44)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (45)..(45)
<223> s=g,c

<220>
<221> misc_feature
<222> (46)..(47)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (48)..(48)
<223> s=g,c

<220>
<221> misc_feature
<222> (49)..(50)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (51)..(51)
<223> s=g,c

<400> 58

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gaa gac gtc gct gtt tac tac tgc cag cag nns nns nns nns nns nns       48
Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln Xaa Xaa Xaa Xaa Xaa Xaa
1               5                   10                  15

nns acc ttc ggt ggt ggt acc aag ctt gg                              77
Xaa Thr Phe Gly Gly Gly Thr Lys Leu
            20                  25
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<210> 59
<211> 25

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide for CDR3 light chain; positive strand

<220>
<221> misc_feature
<222> (11)..(11)
<223> The 'Xaa' at location 11 stands for Lys, Asn, Arg, Ser, Thr, Met, Ile, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon, Tyr, Trp, Cys, or Phe.

<220>
<221> misc_feature
<222> (12)..(12)
<223> The 'Xaa' at location 12 stands for Lys, Asn, Arg, Ser, Thr, Met, Ile, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon, Tyr, Trp, Cys, or Phe.

<220>
<221> misc_feature
<222> (13)..(13)
<223> The 'Xaa' at location 13 stands for Lys, Asn, Arg, Ser, Thr, Met, Ile, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon, Tyr, Trp, Cys, or Phe.

<220>
<221> misc_feature
<222> (14)..(14)
<223> The 'Xaa' at location 14 stands for Lys, Asn, Arg, Ser, Thr, Met, Ile, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon, Tyr, Trp, Cys, or Phe.

<220>
<221> misc_feature
<222> (15)..(15)
<223> The 'Xaa' at location 15 stands for Lys, Asn, Arg, Ser, Thr, Met, Ile, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon, Tyr, Trp, Cys, or Phe.

<220>
<221> misc_feature
<222> (16)..(16)
<223> The 'Xaa' at location 16 stands for Lys, Asn, Arg, Ser, Thr, Met, Ile, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon, Tyr, Trp, Cys, or Phe.

<220>
<221> misc_feature
<222> (17)..(17)
<223> The 'Xaa' at location 17 stands for Lys, Asn, Arg, Ser, Thr, Met, Ile, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon, Tyr, Trp, Cys, or Phe.

<400> 59
Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln Xaa Xaa Xaa Xaa Xaa Xaa
1 5 10 15

Xaa Thr Phe Gly Gly Gly Thr Lys Leu
20 25

<210> 60
<211> 77
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<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide for CDR3 light chain; negative strand

<220>
<221> misc_feature
<222> (27)..(27)
<223> s=g,c

<220>
<221> misc_feature
<222> (28)..(29)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (30)..(30)
<223> s=g,c

<220>
<221> misc_feature
<222> (31)..(32)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (33)..(33)
<223> s=g,c

<220>
<221> misc_feature
<222> (34)..(35)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (36)..(36)
<223> s=g,c

<220>
<221> misc_feature
<222> (37)..(38)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (39)..(39)
<223> s=g,c

<220>
<221> misc_feature
<222> (40)..(41)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (42)..(42)
<223> s=g,c

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<221> misc_feature
<222> (43)..(44)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (45)..(45)
<223> s=g,c

<220>
<221> misc_feature
<222> (46)..(47)
<223> n=a,t,g,c

<400> 60
ccaagcttgg taccaccacc gaaggtsnns nnsnnsnnsn nsnnsnnctg ctggcagtag 60
taaacagcga cgtcttc 77

<210> 61
<211> 70
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide for CDR3 heavy chain; positive
strand

<220>
<221> CDS
<222> (2)..(70)
<223>

<220>
<221> misc_feature
<222> (14)..(15)
<223> n=a,t,g,c

<220>
<221> misc_feature

<222> (16)..(16)
<223> s=g,c

<220>
<221> misc_feature
<222> (17)..(18)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (19)..(19)
<223> s=g,c

<220>
<221> misc_feature
<222> (20)..(21)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (22)..(22)
<223> s=g,c

<220>
<221> misc_feature
<222> (23)..(24)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (25)..(25)
<223> s=g,c

<220>
<221> misc_feature
<222> (26)..(27)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (28)..(28)
<223> s=g,c

<220>
<221> misc_feature
<222> (29)..(30)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (31)..(31)
<223> s=g,c

<220>
<221> misc_feature
<222> (32)..(33)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (34)..(34)
<223> s=g,c

<220>
<221> misc_feature
<222> (35)..(36)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (37)..(37)
<223> s=g,c

<220>
<221> misc_feature
<222> (38)..(39)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (40)..(40)
<223> s=g,c

<220>
<221> misc_feature
<222> (41)..(42)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (43)..(43)
<223> s=g,c

<400> 61
c tac tgc gcg cgt nns nns nns nns nns nns nns nns nns nns ttc gct 49
Tyr Cys Ala Arg Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Phe Ala
1 5 10 15

tac tgg ggt cag ggg acc cct 70
Tyr Trp Gly Gln Gly Thr Pro
20

<210> 62
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide for CDR3 heavy chain; positive strand

<220>
<221> misc_feature

<222> (5)..(5)
<223> The 'Xaa' at location 5 stands for Lys, Asn, Arg, Ser, Thr, Met, Ile, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon, Tyr, Trp, Cys, or Phe.

<220>
<221> misc_feature
<222> (6)..(6)
<223> The 'Xaa' at location 6 stands for Lys, Asn, Arg, Ser, Thr, Met, Ile, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon, Tyr, Trp, Cys, or Phe.

<220>
<221> misc_feature
<222> (7)..(7)
<223> The 'Xaa' at location 7 stands for Lys, Asn, Arg, Ser, Thr, Met, Ile, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon, Tyr, Trp, Cys, or Phe.

<220>
<221> misc_feature
<222> (8)..(8)
<223> The 'Xaa' at location 8 stands for Lys, Asn, Arg, Ser, Thr, Met, Ile, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon, Tyr, Trp, Cys, or Phe.

<220>
<221> misc_feature
<222> (9)..(9)
<223> The 'Xaa' at location 9 stands for Lys, Asn, Arg, Ser, Thr, Met, Ile, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon, Tyr, Trp, Cys, or Phe.

<220>
<221> misc_feature
<222> (10)..(10)
<223> The 'Xaa' at location 10 stands for Lys, Asn, Arg, Ser, Thr, Met, Ile, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon, Tyr, Trp, Cys, or Phe.

<220>
<221> misc_feature
<222> (11)..(11)
<223> The 'Xaa' at location 11 stands for Lys, Asn, Arg, Ser, Thr, Met, Ile, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon, Tyr, Trp, Cys, or Phe.

<220>
<221> misc_feature
<222> (12)..(12)
<223> The 'Xaa' at location 12 stands for Lys, Asn, Arg, Ser, Thr, Met, Ile, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon, Tyr, Trp, Cys, or Phe.

<220>
<221> misc_feature

<222> (13)..(13)
<223> The 'Xaa' at location 13 stands for Lys, Asn, Arg, Ser, Thr, Met, Ile, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon, Tyr, Trp, Cys, or Phe.

<220>
<221> misc_feature
<222> (14)..(14)
<223> The 'Xaa' at location 14 stands for Lys, Asn, Arg, Ser, Thr, Met, Ile, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon, Tyr, Trp, Cys, or Phe.

<400> 62
Tyr Cys Ala Arg Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Phe Ala
1 5 10 15

Tyr Trp Gly Gln Gly Thr Pro
20

<210> 63
<211> 70
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide for CDR3 heavy chain; negative strand

<220>
<221> misc_feature
<222> (28)..(28)
<223> s=g,c

<220>
<221> misc_feature
<222> (29)..(30)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (31)..(31)
<223> s=g,c

<220>
<221> misc_feature
<222> (32)..(33)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (34)..(34)
<223> s=g,c

<220>
<221> misc_feature

<222> (35)..(36)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (37)..(37)
<223> s=g,c

<220>
<221> misc_feature
<222> (38)..(39)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (40)..(40)
<223> s=g,c

<220>
<221> misc_feature
<222> (41)..(42)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (43)..(43)
<223> s=g,c

<220>
<221> misc_feature
<222> (44)..(45)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (46)..(46)
<223> s=g,c

<220>
<221> misc_feature
<222> (47)..(48)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (49)..(49)
<223> s=g,c

<220>
<221> misc_feature
<222> (50)..(51)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (52)..(52)
<223> s=g,c

<220>
<221> misc_feature
<222> (53)..(54)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (55)..(55)
<223> s=g,c

<220>
<221> misc_feature
<222> (56)..(57)
<223> n=a,t,g,c

<400> 63
aggggtcccc tgaccccagt aagcgaasnn snnsnnsnns nnsnnsnnsn nsnnsnnacg 60
cgcgcagtag 70

<210> 64
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Single tag; forward synthetic oligonucleotide

<220>
<221> CDS
<222> (1)..(54)
<223>

<220>
<221> misc_feature
<222> (12)..(12)
<223> y=t,c

<220>
<221> misc_feature
<222> (15)..(15)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (18)..(18)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (19)..(19)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (22)..(22)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (25)..(25)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (28)..(28)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (32)..(32)
<223> k=t,g

<220>
<221> misc_feature
<222> (34)..(34)
<223> v=a,g,c

<220>
<221> misc_feature
<222> (38)..(38)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (39)..(39)
<223> v=a,g,c

<220>
<221> misc_feature
<222> (41)..(41)
<223> n=a,t,g,c

<400> 64
gcg ctg cag gay ggn cgn nac ncc ngg ntg tkc vag gnv cnt tag ctc 48
Ala Leu Gln Asp Gly Arg Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Leu
1 5 10 15

gag cta 54
Glu Leu

<210> 65
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Single tag; forward synthetic peptide

<220>
<221> misc_feature
<222> (7)..(7)
<223> The 'Xaa' at location 7 stands for Asn, Asp, His, or Tyr.

<220>
<221> misc_feature
<222> (8)..(8)
<223> The 'Xaa' at location 8 stands for Thr, Ala, Pro, or Ser.

<220>
<221> misc_feature
<222> (9)..(9)
<223> The 'Xaa' at location 9 stands for Arg, Gly, or Trp.

<220>
<221> misc_feature
<222> (10)..(10)
<223> The 'Xaa' at location 10 stands for Met, Val, or Leu.

<220>
<221> misc_feature
<222> (11)..(11)
<223> The 'Xaa' at location 11 stands for Cys, or Phe.

<220>
<221> misc_feature
<222> (12)..(12)
<223> The 'Xaa' at location 12 stands for Lys, Glu, or Gln.

<220>
<221> misc_feature
<222> (13)..(13)
<223> The 'Xaa' at location 13 stands for Glu, Asp, Gly, Ala, or Val.

<220>
<221> misc_feature
<222> (14)..(14)
<223> The 'Xaa' at location 14 stands for His, Arg, Pro, or Leu.

<400> 65
Ala Leu Gln Asp Gly Arg Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5 10

<210> 66
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Single tag; reverse synthetic oligonucleotide

<220>
<221> misc_feature
<222> (14)..(14)
<223> n=a,t,g,c

<220>
<221> misc_feature

<222> (16)..(16)
<223> b=g,c,t

<220>
<221> misc_feature
<222> (17)..(17)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (21)..(21)
<223> b=g,c,t

<220>
<221> misc_feature
<222> (23)..(23)
<223> m=a,c,

<220>
<221> misc_feature
<222> (27)..(27)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (30)..(30)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (33)..(33)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (36)..(36)
<223> n=a,t,g,c

<400> 66
tagctcgagc taangbncct bgmacanccn ggngtnccgc ccgtcctgca gcgc 54

<210> 67
<211> 87
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Double
tag; forward synthetic oligonucleotide

<220>
<221> CDS
<222> (1)..(87)
<223>

<220>
<221> misc_feature

<222> (12)..(12)
<223> y=t,c

<220>
<221> misc_feature
<222> (15)..(15)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (18)..(19)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (22)..(22)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (25)..(25)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (28)..(28)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (32)..(32)
<223> k=t,g

<220>
<221> misc_feature
<222> (34)..(34)
<223> v=a,g,c

<220>
<221> misc_feature
<222> (38)..(38)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (39)..(39)
<223> v=a,g,c

<220>
<221> misc_feature
<222> (41)..(41)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (45)..(45)
<223> y=t,c

<220>
<221> misc_feature
<222> (48)..(48)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (51)..(52)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (55)..(55)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (58)..(58)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (61)..(61)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (65)..(65)
<223> k=g,t

<220>
<221> misc_feature
<222> (67)..(67)
<223> v=a,g,c

<220>
<221> misc_feature
<222> (71)..(71)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (72)..(72)
<223> v=a,g,c

<220>
<221> misc_feature
<222> (74)..(74)
<223> n=a,t,g,c

<400> 67
gcg ctg cag gay ggn cgn nac ncc ngg ntg tkc vag gnv cnt gay ggn 48
Ala Leu Gln Asp Gly Arg Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Gly
1 5 10 15

cgn nac ncc ngg ntg tkc vag gnv cnt tag ctc gag cta 87
Arg Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Leu Glu Leu
20 25

<210> 68
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Double tag; forward synthetic peptide

<220>
<221> misc_feature
<222> (7)..(7)
<223> The 'Xaa' at location 7 stands for Asn, Asp, His, or Tyr.

<220>
<221> misc_feature
<222> (8)..(8)
<223> The 'Xaa' at location 8 stands for Thr, Ala, Pro, or Ser.

<220>
<221> misc_feature
<222> (9)..(9)
<223> The 'Xaa' at location 9 stands for Arg, Gly, or Trp.

<220>
<221> misc_feature
<222> (10)..(10)
<223> The 'Xaa' at location 10 stands for Met, Val, or Leu.

<220>
<221> misc_feature
<222> (11)..(11)
<223> The 'Xaa' at location 11 stands for Cys, or Phe.

<220>
<221> misc_feature
<222> (12)..(12)
<223> The 'Xaa' at location 12 stands for Lys, Glu, or Gln.

<220>
<221> misc_feature
<222> (13)..(13)
<223> The 'Xaa' at location 13 stands for Glu, Asp, Gly, Ala, or Val.

<220>
<221> misc_feature
<222> (14)..(14)
<223> The 'Xaa' at location 14 stands for His, Arg, Pro, or Leu.

<220>
<221> misc_feature
<222> (18)..(18)
<223> The 'Xaa' at location 18 stands for Asn, Asp, His, or Tyr.

<220>
<221> misc_feature

<222> (19)..(19)
<223> The 'Xaa' at location 19 stands for Thr, Ala, Pro, or Ser.

<220>
<221> misc_feature
<222> (20)..(20)
<223> The 'Xaa' at location 20 stands for Arg, Gly, or Trp.

<220>
<221> misc_feature
<222> (21)..(21)
<223> The 'Xaa' at location 21 stands for Met, Val, or Leu.

<220>
<221> misc_feature
<222> (22)..(22)
<223> The 'Xaa' at location 22 stands for Cys, or Phe.

<220>
<221> misc_feature
<222> (23)..(23)
<223> The 'Xaa' at location 23 stands for Lys, Glu, or Gln.

<220>
<221> misc_feature
<222> (24)..(24)
<223> The 'Xaa' at location 24 stands for Glu, Asp, Gly, Ala, or Val.

<220>
<221> misc_feature
<222> (25)..(25)
<223> The 'Xaa' at location 25 stands for His, Arg, Pro, or Leu.

<400> 68
Ala Leu Gln Asp Gly Arg Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Gly
1 5 10 15

Arg Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
20 25

<210> 69
<211> 87
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Double tag; reverse synthetic oligonucleotide

<220>
<221> misc_feature
<222> (14)..(14)
<223> n=a,t,g,c

<220>
<221> misc_feature

<222> (16)..(16)
<223> b=t,g,c

<220>
<221> misc_feature
<222> (17)..(17)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (21)..(21)
<223> b=t,g,c

<220>
<221> misc_feature
<222> (23)..(23)
<223> m=a,c

<220>
<221> misc_feature
<222> (27)..(27)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (30)..(30)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (33)..(33)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (36)..(36)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (47)..(47)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (49)..(49)
<223> b=t,g,c

<220>
<221> misc_feature
<222> (50)..(50)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (54)..(54)
<223> b=t,g,c

<220>
<221> misc_feature
<222> (56)..(56)
<223> m=a,c

<220>
<221> misc_feature
<222> (60)..(60)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (63)..(63)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (66)..(66)
<223> n=a,t,g,c

<220>
<221> misc_feature
<222> (69)..(69)
<223> n=a,t,g,c

<400> 69
tagctcgagc taangbncct bgmacanccn ggngtnccgc ccgtcangbn cctbgmacan 60
ccnggngtnc cgcccgtcct gcagcgc 87